

REMARKS

Claims 2-7, 9-17, 19-31, and 39-46 are now pending in the application. By this paper, Claims 2, 4, 9, 12-17, 19, 21, 23, 26-31, 40, 41, 43, and 44 have been amended, Claims 1 and 18 have been cancelled without prejudice or disclaimer of the subject matter contained therein, and Claims 45 and 46 have been added. The basis for these amendments and new claims can be found throughout the specification, claims, and drawings originally filed. No new matter has been added. The preceding amendments and the following remarks are believed to be fully responsive to the outstanding Office Action and are believed to place the application in condition for allowance. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-2, 4-5, 9-10, 13, 16-19, 21-24, 27, 30-31, 39 and 42 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kauffman et al. (U.S. Pat. No. 5,209,076). This rejection is respectfully traversed.

Applicants respectfully submit that this rejection is moot with respect to Claims 1 and 18, as Claims 1 and 18 have been cancelled without prejudice, and further submit that this rejection is similarly moot with respect to Claims 2, 4-5, 9-10, 13, 16, 19, 21-24, 27, 30-31, 39, and 42, as Claims 2, 4-5, 9-10, 13, 16, 19, 21-24, 27, 30-31, 39, and 42 respectively dependent from Claims 1 and 18. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 3, 11, 20 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kauffman et al. (U.S. Pat. No. U.S. Pat No. 5,209,076).

Claims 6-7, 12 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kauffman et al. (U.S. Pat. No. U.S. Pat No. 5,209,076) as applied to Claim 1 above, and further in view of Bahel et al. (5,630,325).

Claims 14 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kauffman et al. (U.S. Pat. No. U.S. Pat No. 5,209,076) as applied to Claim 1 above, and further in view of Jurewicz et al. (U.S. Pat. No. 5,499,512).

Claims 15 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kauffman et al. (U.S. Pat. No. U.S. Pat No. 5,209,076) as applied to Claim 1 above, and further in view of Day, III et al. (U.S. Pat. No. 4,387,368).

Claims 40-41 and 43-44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kauffman et al. (U.S. Pat. No. U.S. Pat No. 5,209,076) as applied to Claim 1 above, and further in view of Enstrom (U.S. Pat. No. 4,611,470).

These rejections are respectfully traversed.

Applicants respectfully submit that the rejection of Claims 3, 6-7, 11, 12, 14, 15, 20, 25, 26, 28, 29, 40, 41, 43, and 44 is moot, as Claims 3, 6-7, 11, 12, 14, 15, 20, 25, 26, 28, 29, 40, 41, 43, and 44 respectively depend from now-cancelled Claims 1 and 18. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

NEW CLAIMS

New Claims 45 and 46 are added for consideration. New Claim 45 calls for a system including at least one high-side sensor measuring fluid properties of a high-pressure side of a circuit, at least one current sensor monitoring a current drawn by a motor of a compressor, and processing circuitry receiving fluid property and current information. The processing circuitry compares one of the fluid property and current information to the other of the fluid property and current information to determine a system operation condition.

New Claim 46 similarly calls for at least one high-side sensor that measures fluid property characteristics of a compressor, at least one current sensor that monitors a current drawn by a motor of the compressor, and processing circuitry that receives fluid property and current information. The processing circuitry compares one of the fluid property and current information to the other of the fluid property and current information to determine a compressor operating condition.

The Examiner, in rejecting now-cancelled independent Claims 1 and 18, relied primarily on Kauffman (U.S. Patent No. 5,209,076). The Examiner asserted that Kauffman discloses processing circuitry receiving motor current, high-side temperature and pressure information, and low-side temperature and pressure information to determine system operating conditions. Applicants respectfully submit that while Kauffman teaches a microprocessor-based control device receiving various sensor inputs, Kauffman fails to teach comparing one of high-side sensor data and current sensor data with the other of high-side sensor data and current sensor data.

Kauffman teaches a microprocessor-based control device (38) receiving discharge pressure information from a pressure transducer (46), discharge temperature information from a temperature sensor (48), and current information from one or more current sensors (50). See Kauffman at Col. 3, Ins. 45-47, and Ins. 60-68, and Col. 4, Ins. 1-5. The control device receives information regarding pressure, temperature, and current information from the respective sensors for use in comparison with a predetermined threshold value. Specifically, a predetermined high limit for current draw is established and is compared to amperage sensed by the current sensors. See Kauffman at Col. 6, Ins. 10-17. Similarly, the pressure sensed by the pressure transducer is compared with a pre-established high limit and the temperature sensed by the temperature sensor is compared to a pre-selected high limit. See Kauffman at Col. 6, Ins. 60-65, and Col. 7, Ins. 8-11. In this manner, the pressure and temperature data of Kauffman are not used by the microprocessor of the control device in conjunction with the current data to determine a system operating condition. Kauffman mentions that data from the pressure transducer and the temperature sensor can be used to determine a superheat value by referencing a look-up table based on the pressure and temperature data received, but fails to teach or suggest comparing fluid property information with current to determine a system operating condition.

Accordingly, Applicants respectfully submit that independent Claims 45 and 46, as well as Claims 2-7, 9-17, 19-31, and 39-44, respectively dependent therefrom, are in condition for allowance.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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